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A COMPOUND MOLD AND STRUCTURED SURFACE ARTICLES CONTAINING GEOMETRIC STRUCTURES WITH COMPOUND FACES AND METHOD OF MAKING SAME

Abstract of the Disclosure

A structured surface articles such as molds or sheeting are formed on a compound substrate including a machined substrate and a replicated substrate. In one embodiment, the structured surface is a cube corner element on a compound substrate. In another embodiment, the structured surface is a geometric structure that has a plurality of faces, where one face is located on the machined substrate and another face is located on the replicated substrate. In yet another embodiment, at least some of the faces include a compound face with a portion formed on the machined substrate and a portion formed on the replicated substrate. The method of making a structured surface article including a geometric structure having a plurality of faces includes forming an array of geometric structures in a first surface of a machined substrate; passivating selected locations of the first surface of the machined substrate; forming an array of second geometric structures on a second surface opposite the first surface on the machined substrate; and removing selected portions from the second surface of the machined substrate.

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